ZEMING ZHUANG

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EDUCATION

Shanghaitech University September 2021 - Expected July 2024

M.S. in Information and Communication Engineering Overall GPA: 3.82
Convex Optimization(A), Mechatronics(A), Wireless Communication(A-), Machine Learning(A-)

Shanghaitech University September 2017 - July 2021

B.S. in Electronic Information Engineering and Minor in Finance
Signals and Systems(A), Operating Systems I(A-), Introduction to Control(A-)
Investment and Financial Market(A+), International Finance(A), Principles of Accounting(A)

RESEARCH EXPERIENCE

iData Lab March 2022 - Expected July 2024

Instructor: Prof. Yuanming Shi and co-advised by Prof. Dingzhu Wen

I joined iData Lab in 2022 and at present I am focusing on the research of Integrated Sensing and Communication, Edge AI Learning and Optimization.

Decentralized Over-the-Air Computation for Edge AI Inference with Integrated Sensing and Communication
We proposed an ISCC scheme for decentralized collaborative inference systems, where multiple devices connect to each other and share data via D2D links and full-duplex AirComp. The paper has been accepted by GLOBECOM 2023.

Task-oriented Integration of Sensing and Over-the-air Computation for Edge-device Collaborative Inference
We proposed a task-oriented ISCC system for edge co-inference combining target sensing, local feature extraction with feature aggregation and proposed a novel criterion minimum discriminant gain to directly measure the accuracy of inference tasks. The paper has been accepted by IEEE TWC.

Shanghai Institute of Fog Computing Technology (SHIFT) September 2019 - March 2022

Instructor: Prof. Yang Yang, IEEE Fellow

I joined SHIFT since my third year of college in 2020, where I started learning about fog computing and edge learning. Studying classic publications and participating in projects let me have a solid grasp on knowledge of Fog Computing.

Markov State Transition Modeling in Complex High-Dimensional State Space Based on Fuzzy Integral
We proposed a novel model for observing and describing the state of financial IT system based on fuzzy integral to analyze and predict system anomalies, which shows an outperformance on a real business dataset of securities companies in China. The paper has been accepted by GLOBECOM Workshop 2022.

PROJECT AND VOLUNTEER

A surveillance APP for epidemic February 2020

At the beginning of COVID-19 outbreak, my friends and I made an APP to record and report resident's daily activity and physical conditions. Our APP has come into service for communities in Zhejiang and Sichuan during Feb. and March 2020.

Shanghai International Marathon in 2018 & 2022 November 2018 & 2022

I have been a volunteer for Shanghai Marathon Race. My duty was to guide runners after the finish line to supplement area and response to other potential need.

TECHNICAL STRENGTH

Languages	Chinese (Native), English (IELTS 7.5)
Programming Languages	Python, C/C++, MATLAB
Tools	Git, LaTeX, PyTorch, Pandas, CVX